

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Attorney Docket No.: **ISPH-0764**

Inventors: **Bennett and Wyatt**

Serial No.: **Not yet assigned**

Filing Date: **Herewith**

Examiner: **Not yet assigned**

Group Art Unit: **Not yet assigned**

Title: **Antisense Modulation of Phospholipase
A2, Group IIA (Synovial) Expression**

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By *Jane Massey Licata*
Typed Name: **Jane Massey Licata, Reg. No. 32,257**

Commissioner for Patents
Mail Stop Sequence
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

INFORMATION DISCLOSURE STATEMENT

Pursuant to 37 C.F.R. §1.56 and in accordance with 37 C.F.R. §§1.97-1.98, information relating to the above-identified application is hereby disclosed. Inclusion of information in this statement is not to be construed as an admission that this information is material as that term is defined in 37 C.F.R. §1.56(b).

(XX) In accordance with §1.97(b), since this Information Disclosure Statement is being filed either within three months of the filing date of the above-identified application, within three months of the date of entry into the national stage of the above identified application as set forth in §1.491, or before the mailing date of a first Office Action on the merits of the above-identified application, no additional fee is required.

() In accordance with §1.97(c), this Information Disclosure Statement is being filed after the period set forth in §1.97(b) above but before the mailing date of either a Final Action under §1.113 or a Notice of Allowance under §1.311, therefore:

- () Certification in Accordance with §1.97(e) is attached hereto; or
- () The fee of \$180.00 as set forth in §1.17(p) is attached.

() In accordance with §1.97(d), this Information Disclosure Statement is being filed after the mailing date of either a Final Action under §1.113 or a Notice of Allowance under §1.311 but before the payment of the Issue Fee, therefore included are: Certification in Accordance with §1.97(e); Petition Requesting Consideration of the Information Disclosure Statement; and the fee of \$130.00 as set forth in §1.17(I)(1).

() Copies of each of the references listed on the attached Form PTO-1449 (modified) are enclosed herewith.

(XX) In accordance with §1.98(d), copies of some or all of the references listed on the attached Form PTO-1449 (modified) are not enclosed herewith because they were previously submitted to the U.S. Patent and Trademark Office in prior application Serial No. 09/865,866, filed May 25, 2001, for which a claim for priority under 35 U.S.C. §120 has been made in the instant application.

Please charge any deficiency or credit any overpayment to Deposit Account No. 50-1619. This form is submitted in duplicate.

() The relevance of the listed references in a foreign language is as stated in the specification at pages @@.

(XX) All listed references are in the English language.

Respectfully submitted,

Jane Massey Licata

Jane Massey Licata
Registration No. 32,257

Date: August 18, 2003

Licata & Tyrrell P.C.
66 E. Main Street
Marlton, New Jersey 08053

(856) 810-1515

Form PTO-1449 Modified		Docket No. ISPH-0764	Serial No. not yet assigned
List of Patents and Publications Cited by Application (Use several sheets if necessary) U.S. Department of Commerce Patent and Trademark Office		Applicant C. Frank Bennett et al.	
		Filing Date herewith	Group
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)			
	AA	Abe et al., Group II phospholipase A2 is increased in peritoneal and pleural effusions in patients with various types of cancer, <i>Int. J. Cancer</i> , 1997, 74:245-250.	
	AB	Barbour et al., Antisense inhibition of group II phospholipase A2 expression blocks the production of prostaglandin E2 by P388D1 cells, <i>J. Biol. Chem.</i> , 1993, 268:21875-21882.	
	AC	Bennett et al., Sequence specific inhibition of human type II phospholipase A2 enzyme activity by phosphorothioate oligonucleotides, <i>Nucleic Acid Res.</i> , 1994, 22, 3202-3209.	
	AD	Bidgood et al., Type IIA secretory phospholipase A2 up-regulates cyclooxygenase-2 and amplifies cytokine-mediated prostaglandin production in human rheumatoid synoviocytes, <i>J. Immunol.</i> , 2000, 165:2790-2797.	
	AE	Bryant et al., 1,3-Dioxane-4,6-dione-5-carboxamide-based inhibitors of human group IIA phospholipase A: X-ray structure of the complex and interfacial selection of inhibitors from a structural library, <i>Bioorg. Med. Chem. Lett.</i> , 1999, 9:1097-1102.	
	AF	Chilton et al., Antigen-induced generation of lyso-phospholipids in human airways, <i>J. Exp. Med.</i> , 1996, 183:2235-2245.	
	AG	Cupillard et al., Cloning, chromosomal mapping, and expression of a novel human secretory phospholipase A2, <i>J. Biol. Chem.</i> , 1997, 272:15745-15752.	
	AH	Dennis, Diversity of group types, regulation, and function of phospholipase A2, <i>J. Biol. Chem.</i> , 1994, 269:13057-13060.	
	AI	Dennis, The growing phospholipase A2 superfamily of signal transduction enzymes, <i>Trends Biochem. Sci.</i> , 1997, 22:1-2.	
	AJ	Dorsam et al., Diphenyliodonium chloride blocks inflammatory cytokine-induced up-regulation of group IIA phospholipase A(2) in rat mesangial cells, <i>J. Pharmacol. Exp. Ther.</i> , 2000, 292:271-279.	
EXAMINER		DATE CONSIDERED	

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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)			
	AK	Furue et al., Crucial role of group IIA phospholipase A(2) in oleic acid-induced acute lung injury in rabbits, Am. J. Respir. Crit. Care Med., 1999, 160:1292-1302.	
	AL	Ivandic et al., Role of group II secretory phospholipase A2 in atherosclerosis: 1. Increased atherogenesis and altered lipoproteins in transgenic mice expressing group IIA phospholipase A2, Arterioscler. Thromb. Vasc. Biol., 1999, 19:1284-1290.	
	AM	Jamal et al., Increased expression of human type IIA secretory phospholipase A2 antigen in arthritic synovium, Ann. Rheum. Dis., 1998, 57:550-558.	
	AN	Kano et al., Effects of long-term ursodeoxycholate administration on expression levels of secretory low-molecular-weight phospholipases A2 and mucin genes in gallbladders and biliary composition in patients with multiple cholesterol stones, Hepatology, 1998, 28:302-313.	
	AO	Koike et al., Group IIA phospholipase A2 mediates lung injury in intestinal ischemia-reperfusion, Ann. Surg., 2000, 232:90-97.	
	AP	Koyama et al., Elevations of group II phospholipase A2 concentrations in serum and amniotic fluid in association with preterm labor, Am.J. Obstet. Gynecol., 2000, 183:1537-1543.	
	AQ	Kudo et al., Mammalian non-pancreatic phospholipases A2, Biochim. Biophys. Acta, 1993, 1170:217-231.	
	AR	Lilja et al., Presence of group IIA secretory phospholipase A2 in mast cells and macrophages in normal human ileal submucosa and in Crohn's disease, Clin. Chem. Lab Med., 2000, 38:1231-1236.	
	AS	Lin et al., Secretory phospholipase A2 as an index of disease activity in rheumatoid arthritis. Prospective double blind study of 212 patients, J. Rheumatol., 1996, 23:1162-1166.	
	AT	Minami et al., Elevation of phospholipase A2 protein in sera of patients with Crohn's disease and ulcerative colitis, Am. J. Gastroenterol., 1993, 88:1076-1080.	
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	AU	Minami et al., Increased group II phospholipase A2 in colonic mucosa of patients with Crohn's disease and ulcerative colitis, Gut, 1994, 35:1593-1598.	
	AV	Nevalainen, Serum phospholipases A2 in inflammatory diseases, Clin. Chem., 1993, 39:2453-2459.	
	AW	Pruzanski et al., Circulating group II phospholipase A2 activity and antilipocortin antibodies in systemic lupus erythematosus. Correlative study with disease activity, J. Rheumatol., 1994, 21:252-257.	
	AX	Pruzanski et al., Lipoproteins are substrates for human secretory group IIA phospholipase A2: preferential hydrolysis of acute phase HDL, J. Lipid Res., 1998, 39:2150-2160.	
	AY	Shoda et al., Secretory low-molecular-weight phospholipases A2 and their specific receptor in bile ducts of patients with intrahepatic calculi: factors of chronic proliferative cholangitis, Hepatology, 1999, 29:1026-1036.	
	AZ	Snyder et al., Pharmacology of LY315920/S-5920, [[3-(aminooxoacetyl)-2-ethyl-1-(phenylmethyl)-1H-indol-4-yl]oxy] acetate, a potent and selective secretory phospholipase A2 inhibitor: A new class of anti-inflammatory drugs, SPI, J. Pharmacol. Exp. Ther., 1999, 288:1117-1124.	
	BA	Vadas et al., Extracellular phospholipase A2 expression and inflammation: the relationship with associated disease states, J. Lipid Mediat., 1993, 8:1-30.	
	BB	Wada et al., Systemic autoimmune nephritogenic components induce CSF-1 and TNF-alpha in MRL kidneys, Kidney Int., 1997, 52:934-941.	
	BC	Weinrauch et al., Mobilization of potent plasma bactericidal activity during systemic bacterial challenge. Role of group IIA phospholipase A2, J. Clin. Invest., 1998, 102:633-638.	
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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)			
	BD	Yokota et al., Suppression of murine endotoxic shock by sPLA2 inhibitor, indoxam, through group IIA sPLA2- independent mechanisms, Biochim. Biophys. Acta, 1999, 1438:213-222.	
EXAMINER		DATE CONSIDERED	

Form PTO-1449 Modified	Docket No.	Serial No.
List of Patents and Publications Cited by Application (Use several sheets if necessary) U.S. Department of Commerce Patent and Trademark Office	TSPH-0764	
	Applicant C. Frank Bennett et al.	
	Filing Date	Group

U.S. PATENT DOCUMENTS

Examiner's Initial		Document No.	Date	Name	Class	Subclass
	AA	5,019,508	5/28/1991	Johnson et al.	434	198
	AB					
	AC					
	AD					
	AE					
	AF					
	AG					
	AH					
	AI					
	AJ					
	AK					
	AL					
	AM					
	AN					

FOREIGN PATENT DOCUMENTS

Examiner's Initial		Document No.	Date	Country	Translation YES NO	
	AO	WO 91/16901	11/14/1991	PCT		
	AP					
	AQ					
	AR					
	AS					
	AT					
	AU					
	AV					
	AW					
	AX					

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	BA	Milner et al., "Selecting effective antisense reagents on combinatorial oligonucleotide arrays", Nature Biotechnology 1997 15:537-541	
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U. S. PATENT DOCUMENTS						
Examiner		Document	Date	Name	Class	Subclass
	CA	5,877,309	3-2-99	McKay et al.	536	24.5
FOREIGN PATENT DOCUMENTS						
Examiner Initial		Document No.	Date	Country	Translation YES NO	
EXAMINER				DATE CONSIDERED		